Approved by OMB (Office of Management and Budget) 3060-1178

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: **34847** | Service: **DTV** | Call Sign: **KING-TV** | Channel: **25 (UHF)**

File Number: **0000028077**

FRN: **0001582782** | Date Submitted: **10/02/2019**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
KING BROADCASTING COMPANY	Denise Branson, Sr. Paralegal TEGNA, INC. 8350 Broad Street, Suite 2000 Tysons, VA 22102 United States	+1 (703) 873-6606	dbranson@TEGNA.com	Corporation

Reimbursement Contact Information

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
Jeffrey Johnson , Johnson . *Vice President Projects* *TEGNA*	Jeffrey Johnson 7950 Jones Branch Drive McLean, VA 22102 United States	+1 (703) 873-6736	jsjohnson@tegna.com

Broadcaster Information and Transition Plan

Question	Response
Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	No
Briefly describe transition plan	KING will transition to its new facilities with a side mount antenna in the same aperture of the existing antenna. Interim facilities will need to be constructed and this tower will need serious structural reinforcement.

Transmitters

Section	Question	Response
Transmitter Related Expenses	Do you have transmitter related expenses?	Yes

Primary Transmitter

Existing Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	CD3200P2
	Year	1998
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	50 kW

Primary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-40
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	25.3 kW
	Justification for New Transmitter	Station has in excess of 10% TPO headroom and is eligible for a 1-Step-Up Allowance. Reimbursable TPO is 17.0 kW based on initial 90-day filing CP. This would require a ULXTE-30. A 1-Step-Up is the ULXTE-40 and is therefore reimbursable.

Primary Transmitter

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No

	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	Yes
	Size	3 inches
	Length	100.0 feet
	Other Electrical Service	Yes
	Description	Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Heating and Cooling
	Size	10 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	Yes
	Size	100.0 square feet
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter	**Other Transmitter Cost Not Listed** Information not provided.

Antennas

Section	Question	Response
Antenna Related Expenses	Do you have antenna related expenses?	Yes

Primary Antenna

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	950.0 kW

Manufacturer	
Model	TFU-30DSC-RP200
Year	1998

Primary Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels/Bays	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Design power capacity in use	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	608.0 kW
	Manufacturer	

	Model	TFU-26DSC /VP-R P200
	Year	2019
	Justification for New Antenna	Licensed side-mount antenna cannot be re-tuned for new post-transition frequency and must be replaced. Station is opting to Upgrade to Elliptical polarization.

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	6 1/8 inches inches

Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Primary Antenna

Other Antenna Cost Not Listed

Name	Description
Shipping	$6,800

Interim Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels/Bays	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Design power capacity in use	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	960.0 kW
	Manufacturer	
	Model	TUAP4- 8 /20H-1-R SM

Year	2019
Justification for New Antenna	An interim antenna is necessary to keep station on air during primary antenna replacement & for duration of assigned phase. An interim antenna with a custom peanut pattern is required to replicate existing coverage.

Interim Antenna

Other Antenna Costs

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	B
	Feed Line Size	6 1/8 inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Interim Antenna

Other Antenna Cost Not Listed

Name	Description
Shipping	$6,800

Transmission Line

Section	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

Primary Transmission Line

Existing Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	590 feet per run

Primary Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	19 3/4 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	590 feet per run
	Justification for New Transmission Line	Main 7-3/16" rigid transmission line has 20 ft sections which are prohibited for post-transition Channel 25. Therefore, station must replace existing 20 ft section line with new 19-3/4 ft section line.

Primary Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
TX Line Sweep	Sweep required to verify post-transition channel measures well on existing line.

Interim Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Type	Rigid
	Diameter	6 1/8 inches
	Segment Length	Broadband
	Other Segment Length	
	Number of parallel runs	1
	Length	500 feet per run
	Justification for New Transmission Line	Interim transmission line is necessary to keep station on air during primary antenna replacement & for duration of assigned phase. 6-1/8" rigid line is required to provide required power rating for replication ERP.

Interim Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
TX Line Sweep	Sweep required to verify post-transition channel measures well on new line.

Tower Equipment And Rigging Costs

Section	Question	Response
Tower Equipment or Rigging Costs Changes	Do you have tower equipment or rigging costs changes?	Yes

Primary Tower

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Is this tower consider Complex?	
	Is this tower currently shared with any other stations?	No
	One or more FM, AM or TV radio broadcaster(s)	N/A
	Others Types of Users	N/A
	Is tower documented for structural analysis?	No
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1032128
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	47° 37' 54.0" N-
	Longitude (NAD83)	122° 21' 03.0" W-
	Overall Structure Height	569.87 feet
	Support Structure Height	438.64 feet
	Ground Elevation Above Mean Sea Level (AMSL)	430.44 feet
	Structure Type	TOWER - Free Standing or Guyed Structure

Tower Owner	KING BROADCASTING COMPANY
Date Constructed	01/01/1953

Primary Tower

Tower Modification Costs

Section	Question	Response
Engineering Study	Please what type of engineering study is required, if any:	Study needed for undocumented /poorly documented tower
Tower Reinforcements	Please select whether tower reinforcements are needed:	Major Reinforcements needed

Primary Tower

Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	Other
Helicopter Services Required	Are helicopter services required?	No

Primary Tower

Other Tower Expenses Not Listed

Name	Description
Geotech Study	Geotech Study
Insurance	Insurance for the tower contractor
Lead-based Paint Management Program	Lead-based Paint Management Program

Outside Professional Services Costs

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	750
	Explanation	It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399s. Station does not have available personnel or personnel trained in project management for such complex projects.
Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes

	Quantity	2
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
Attorney and Other Outside Consulting Services	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	2
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	Negotiation of Lease and other Matter for Shared Locations	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
RF Field Engineering Services	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	Yes

Number of Days	20
Justification	$2,500 per site visit including expenses x 20 days. It is necessary to survey the site, plan the equipment, develop specifications for purchasing, & oversee multiple vendor RF projects. Station does not have available personnel trained in such services.

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
Other Legal Services	Other Legal Services related to the DTV Repack
Pre filing site review	Osborne engineering conducted a pre-filing analysis to determine if all of the necessary information had been captured.
Other Engineering Services	Fewer Proj Mgt "PM" tasks are req'd & Other Engineering Services "OES" are req'd, so the PM total was reduced to 750 hrs ($112,500.00 at $150/hr), a new OES comp was created & funded with $ from PM. See attachment titled "KGA quote to KING for OES.pdf"

Other Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	No
	Is Remediation needed?	No
Facility Expenses	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
Permit and Filing Costs	Local Zoning	Yes
	Non-zoning permits	Yes
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	No
	FCC Special Temporary Authority Application	No
Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
	Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
	Does this relocation require Equipment Storage?	Yes
	Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
	Does this relocation require MVPD Notification of a Channel Change?	Yes

Other Expenses

Other Expenses Not Listed

Name	Description
PR Firm	Public Relations Firm
Internal labor	Local and Corporate labor

Cost Information

Transmitters

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmitter ULXTE-40	**$1,062,700.00**	**$1,123,726.48**		**$944,845.71**	
Other -- Building Addition Size: 100.0	***$25,000.00***	$25,000.00	New pad required for heat exchangers, transformers, pumps, etc. Equipment must also be shielded.	N/A	N/A
10 Ton system	$60,500.00	$57,500.00	Additional HVAC required for operation of new transmitter while still operating with main transmitter during testing period.	N/A	N/A

Other Electrical Service: Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	***$25,000.00***	$25,000.00	Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	N/A	N/A
3" Rigid Conduit and Wiring (Cost per foot)	$5,200.00	$4,900.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	$947,000.00	$1,011,326.48	The total cost is higher due to the additional of Sales tax	$944,845.71	N/A
Sub-total	$1,062,700.00	$1,123,726.48	N/A	$944,845.71	N/A
Total for all systems	$3,605,121.87	$4,482,796.55	N/A	$3,093,097.89	N/A

Components

Actual Information Description	File Name
Other -- Building Addition Size: 100.0	Information not provided.
10 Ton system	Information not provided.
Other Electrical Service: Additional electrical services required for transmitter installation, including heat exchangers, transformers, cooling pumps, etc.	Information not provided.

3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	**Component Description:** Gates US0324371 v190829pmv1 **Amount:** $485,052.23 **Component Description:** Clean Harbors 1002884435 v190711jgv1 **Amount:** $2,631.34 **Component Description:** Gates inv #JW30004448-1A ULXTE-40 pmt 2 UL20190320jgv1 **Amount:** $152,387.38 **Component Description:** Gates inv #JW30004448-1 Transmitter 1 3rd dp UL20181211jgv2 **Amount:** $304,774.76

Cost Information

Antennas

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TUAP4- 8 /20H-1-R SM	**$257,203.00**	**$249,188.00**		**$229,326.09**	
Shipping	***$6,800.00***	$6,800.00	N/A	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 960 kW input, directional,, horizontally polarized	***$201,563.00***	$201,563.00	***System Notice: Estimate adjusted and locked because line has been superseded. ***	$201,563.00	The full cost of the antenna is $201,563.00 as seen on the Quote in the submitted Invoices MAN00842 and MAN01040. Subsequently add'l invoices pertaining to this component have been received.
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	N/A	N/A
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	$13,700.00	$13,000.00	N/A	$11,338.09	N/A

Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$16,425.00	***System Notice: Estimate adjusted and locked because line has been superseded. ***	$16,425.00	N/A
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	$5,260.00	$5,000.00	N/A	N/A	N/A
Primary Antenna TFU-26DSC /VP-R P200	**$240,243.47**	**$237,653.47**		**$216,849.77**	
Shipping	***$6,800.00***	$6,800.00	N/A	N/A	N/A
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	$5,260.00	$5,000.00	N/A	N/A	N/A

Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$21,750.00	***System Notice: Estimate adjusted and locked because line has been superseded. ***	$21,750.00	N/A
UHF - High Power, Side Mount, basic slot antenna, 608 kW input, directional,, elliptically or circularly polarized	***$186,003.47***	$186,003.47	See attached Dielectric Quote DMS031-4. Also includes sales tax.	$185,831.57	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	$12,300.00	$11,700.00	N/A	$9,268.20	N/A
Sub-total	$497,446.47	$486,841.47	N/A	$446,175.86	N/A
Total for all systems	$3,605,121.87	$4,482,796.55	N/A	$3,093,097.89	N/A

Components

Actual Information Description	File Name
Shipping	Information not provided.

UHF - High Power, Side Mount, basic slot antenna, 960 kW input, directional,, horizontally polarized	**Component Description:** **Amount:**	Die 472012 v190828pmv2 $20,156.30
	Component Description: **Amount:**	Die MAN01040 v190509jgv1 $90,703.35
	Component Description: **Amount:**	Die MAN01040 Aux ant 45 pct pmt 2 v190814jgv2 $90,703.35
	Component Description: **Amount:**	Die inv #MAN00842 Aux ant and line 45 pct pmt 1 UL20190128jgv1 $90,703.35
	Component Description: **Amount:**	Die 485003 v190712pmv1 N/A
Sweep test of existing antenna	Information not provided.	

Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	**Component Description:** **Amount:**	Die 478002 v190723pmv1 $1,029.80
	Component Description: **Amount:**	Die ST478002 v190723pmv1 $1,040.09
	Component Description: **Amount:**	Die MAN01040 v190509jgv1 $4,634.10
	Component Description: **Amount:**	Die inv #MAN00842 Aux elbow complex 45 pct pmt 1 UL20190128jgv1 $4,634.10
	Component Description: **Amount:**	Die MAN01040 Aux elbow complex 45 pct pmt 2 v190814jgv2 $4,634.10

Side mount brackets for high power antennas (if not included in antenna base cost)	**Component Description:** Die 472012 v190828pmv2 **Amount:** $1,642.50 **Component Description:** Die MAN01040 Aux ant mt brackets 45 pct pmt 2 v190814jgv2 **Amount:** $7,391.25 **Component Description:** Die 485003 v190712pmv1 **Amount:** N/A **Component Description:** Die inv #MAN00842 Aux ant mt brackets 45 pct pmt 1 UL20190128jgv1 **Amount:** $7,391.25 **Component Description:** Die MAN01040 v190509jgv1 **Amount:** $7,391.25
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.
Shipping	Information not provided.
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.

Side mount brackets for high power antennas (if not included in antenna base cost)	**Component Description:** **Amount:**	Die 485003 v190828pmv2 $2,175.00
	Component Description: **Amount:**	Die inv #MAN01065 Primary side brackets pmt 2 UL20190312jgv1 $9,787.50
	Component Description: **Amount:**	Die inv #MAN00843 Primary side brackets pmt 1 UL20190312jgv1 $9,787.50

UHF - High Power, Side Mount, basic slot antenna, 608 kW input, directional,, elliptically or circularly polarized	**Component Description:** **Amount:**	Die ST485003 v190617jgv1 $20,104.66
	Component Description: **Amount:**	Die ST478001 v190617jgv1 $8,023.81
	Component Description: **Amount:**	Die inv #MAN00843 Primary antenna pmt 1 UL20190312jgv1 $70,270.20
	Component Description: **Amount:**	Die inv #MAN00843 Primary fixed flange swivel pmt 1 UL20190312jgv1 $773.55
	Component Description: **Amount:**	Die 485003 v190828pmv2 $15,615.60
	Component Description: **Amount:**	Die inv #MAN01065 Primary fixed flange swivel pmt 2 UL20190312jgv1 $773.55
	Component Description: **Amount:**	Die inv #MAN01065 Primary antenna pmt 2 UL20190312jgv1 $70,270.20
Sweep test of existing antenna	Information not provided.	

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	**Component Description:** **Amount:**	Die inv #MAN00843 Primary elbow complex pmt 1 UL20190312jgv1 $4,634.10
	Component Description: **Amount:**	Die inv #MAN01065 Primary elbow complex pmt 2 UL20190312jgv1 $4,634.10

Cost Information

Transmission Line

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmission Line	**$122,400.00**	**$116,900.00**		**$87,550.72**	
Rigid Transmission Line - copper, 6 1 /8" broadband	$116,000.00	$110,500.00	N/A	$81,790.72	N/A
TX Line Sweep	***$6,400.00***	$6,400.00	N/A	$5,760.00	N/A
Primary Transmission Line	**$125,580.00**	**$92,718.20**		**$89,843.65**	
Rigid Transmission Line - copper, 6 1/8"	$119,180.00	$86,318.20	See attached Dielectric Quote DMS031-4. Estimated total include the Transmission Line & Fixed Flange Swivel line items 5 and 10.	$84,083.65	N/A
TX Line Sweep	***$6,400.00***	$6,400.00	N/A	$5,760.00	N/A
Sub-total	$247,980.00	$209,618.20	N/A	$177,394.37	N/A
Total for all systems	$3,605,121.87	$4,482,796.55	N/A	$3,093,097.89	N/A

Components

Actual Information Description	File Name	
Rigid Transmission Line - copper, 6 1/8" broadband	**Component Description:** **Amount:**	Die 478002 v190723pmv1 $6,866.86
	Component Description: **Amount:**	Die ST478002 v190723pmv1 $6,935.52
	Component Description: **Amount:**	Die MAN01040 Aux TLSCRs 45 pct pmt 2 v190814jgv2 $3,093.30
	Component Description: **Amount:**	Die MAN01040 v190509jgv1 $30,900.87
	Component Description: **Amount:**	Die MAN01040 Aux transmission line 45 pct pmt 2 v190814jgv2 $30,900.87
	Component Description: **Amount:**	Die MAN01040 v190509jgv1 $3,093.30
	Component Description: **Amount:**	Die inv #MAN00842 Aux transmission line 45 pct pmt 1 UL20190128jgv1 $30,900.87

	Component Description:	Die inv #MAN00842 Aux TLSCRs 45 pct pmt 1 UL20190128jgv1
	Amount:	$3,093.30
TX Line Sweep	**Component Description:**	Die inv #MAN00842 Aux sweep 45 pct pmt 1 UL20190128jgv1
	Amount:	$2,880.00
	Component Description:	Die MAN01040 Aux sweep 45 pct pmt 2 v190814jgv2
	Amount:	$2,880.00
	Component Description:	Die MAN01040 v190509jgv1
	Amount:	$2,880.00

Rigid Transmission Line - copper, 6 1/8"	**Component Description:**	Die 478001 v190723pmv1
	Amount:	$7,944.37
	Component Description:	Die inv #MAN00843 Primary fixed flange swivel pmt 1 UL20190312jgv1
	Amount:	$2,319.97
	Component Description:	Die inv #MAN00843 Primary transmission line pmt 1 UL20190312jgv1
	Amount:	$35,749.67
	Component Description:	Die inv #MAN01065 Primary fixed flange swivel pmt 2 UL20190312jgv1
	Amount:	$2,319.97
	Component Description:	Die inv #MAN01065 Primary transmission line pmt 2 UL20190312jgv1
	Amount:	$35,749.67

TX Line Sweep	**Component Description:** **Amount:** **Component Description:** **Amount:**	Die inv #MAN01065 Primary sweep pmt 2 UL20190312jgv1 $2,880.00 Die inv #MAN00843 Primary sweep pmt 1 UL20190312jgv1 $2,880.00

Cost Information

Tower Equipment and Rigging Costs

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cos Justificatic
Primary Tower TOWER	**$1,118,321.04**	**$1,951,821.04**		**$1,338,711.04**	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	$421,000.00	$400,000.00	N/A	$19,380.00	N/A
Geotech Study	***$7,620.00***	$7,620.00	See attached PDF titled "TCI 8207 v191001jgv1.pdf"	$7,620.00	N/A
Insurance	***$69,194.94***	$69,194.94	Insurance	$69,194.94	N/A

Major tower reinforcement /modifications	$421,000.00	$1,276,800.00	Tower is complicated in metro area & is showing signs of compression. Replacement not an option because of strict local zoning. Cost Estimate is the sum of TCI Qtes TCI-18-206B ($446,840), TCI-18-228A ($217,700) & TCI-18-106C ($612,260) which are attached	$1,069,310.00	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	$26,300.00	$25,000.00	N/A	N/A	N/A

Lead-based Paint Management Program	***$173,206.10***	$173,206.10	See uploaded Ramboll US Corporation invoices and accompanying Scope of Work / Budget Estimate. Also see uploaded TCI invoices 8829 8849 8857 8861 8870 8885 against TCI quote TCI-18-106C	$173,206.10	N/A
Sub-total	$1,118,321.04	$1,951,821.04	N/A	$1,338,711.04	N/A
Total for all systems	$3,605,121.87	$4,482,796.55	N/A	$3,093,097.89	N/A

Components

Actual Information Description	File Name	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	**Component Description:** **Amount:**	TCI 8206 v191002jgv1 $8,000.00
	Component Description: **Amount:**	TCI 8063 v191001jgv1 $7,970.00
	Component Description: **Amount:**	TCI 8104 v191001jgv1 $3,410.00
Geotech Study	**Component Description:** **Amount:**	TCI 8207 v191001jgv1 $7,620.00

Insurance	**Component Description:**	TCI inv #8645 Insurance UL20190318jgv1
	Amount:	$69,194.94

Major tower reinforcement /modifications	**Component Description:**	TCI inv #8643 Tower maintenance and repairs pmt 1 UL20190306jgv1
	Amount:	$108,850.00
	Component Description:	TCI 8651 v190606jgv1
	Amount:	$111,710.00
	Component Description:	TCI 8678 v190801jgv1
	Amount:	$111,710.00
	Component Description:	TCI 8801 v190729jgv1
	Amount:	$54,425.00
	Component Description:	TCI 8800 v190726jgv1
	Amount:	$153,065.00
	Component Description:	TCI inv #8644 Tower mods UL20190318jgv1
	Amount:	$306,130.00
	Component Description:	TCI inv #8589 Foundation modification 50 pct pmt 1 UL20190127jgv1
	Amount:	$223,420.00

Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	Information not provided.
Lead-based Paint Management Program	**Component Description:** Ramboll 1690028752 v190607pmv1 **Amount:** $3,703.14 **Component Description:** Ramboll 1690034015 v190607pmv1 **Amount:** $7,169.74 **Component Description:** Ramboll 1690029932 v190625jgv1 **Amount:** $1,682.75 **Component Description:** Ramboll 1690035431 v190722jgv1 **Amount:** $672.28 **Component Description:** Ramboll 1690037085 v190927pmv1 **Amount:** $2,517.77 **Component Description:** TCI 8870 v190919jgv1 **Amount:** $20,433.88 **Component Description:** TCI 8885 v191001jgv1 **Amount:** $22,899.45

Component Description:	TCI 8857 v190919jgv1
Amount:	$24,554.43
Component Description:	TCI 8829 v190919jgv1
Amount:	$29,620.68
Component Description:	TCI 8837 v190927pmv1
Amount:	$26,783.58
Component Description:	TCI 8849 v190919jgv1
Amount:	$11,449.73
Component Description:	TCI 8861 v190919jgv1
Amount:	$12,226.55
Component Description:	Ramboll 1690031980 v190507jgv1
Amount:	$9,492.12

Cost Information

Outside Professional Services

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cos Justificatic
Outside Professional Services	**$389,685.00**	**$422,350.00**		**$46,356.72**	
Other Engineering Services	***$37,500.00***	$37,500.00	Fewer Proj Mgt "PM" tasks are req'd & Other Engineering Services "OES" are req'd, so the PM total was reduced to 750 hrs ($112,500.00 at $150/hr), a new OES comp was created & funded with $ from PM. See attachment titled "KGA quote to KING for OES.pdf"	$24,625.01	N/A
Pre filing site review	***$24,100.00***	$24,100.00	N/A	N/A	N/A
Other Legal Services	***$10,000.00***	$10,000.00	Other Legal Services related to the DTV Repack	$424.09	N/A

Additional Field Engineering Service, 20 Days	***$50,000.00***	$50,000.00	$2,500 per site visit including expenses x 20 days. It is necessary to survey the site, plan the equipment, develop specifications for purchasing, & oversee multiple vendor RF projects. Station does not have available personnel trained in such services.	N/A	N/A
RF Exposure Measurements	$21,050.00	$20,000.00	N/A	N/A	N/A
Comprehensive coverage verification via field study, if needed	$84,200.00	$80,000.00	N/A	N/A	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	$2,105.00	$2,000.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	$2,105.00	$2,000.00	N/A	N/A	N/A

Attorney Fees - Prepare and File request for Special Temporary Authorization	$7,360.00	$7,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	$2,365.00	$2,250.00	N/A	N/A	N/A
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	$2,105.00	$4,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	$5,260.00	$5,000.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	$4,100.00	$3,000.00	N/A	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	$1,580.00	$1,500.00	N/A	N/A	N/A

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	$1,580.00	$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	N/A	N/A
Address transition timing and coordination issues w/ other stations and wireless	$2,630.00	$2,500.00	N/A	N/A	N/A

Project management of the transition	$118,500.00	$150,000.00	It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399s. Station does not have available personnel or personnel trained in project management for such complex projects.	$18,769.62	N/A
Prepare and or review reimbursement form	$2,630.00	$10,000.00	The cost estimate includes the initial 399 amendment, anticipated subsequent 399 amendments, and Actual Cost invoice prep and submission by KGA.	$2,538.00	N/A
Sub-total	$389,685.00	$422,350.00	N/A	$46,356.72	N/A
Total for all systems	$3,605,121.87	$4,482,796.55	N/A	$3,093,097.89	N/A

Components

Actual Information Description	File Name

Other Engineering Services	**Component Description:** Osborn inv #26012 Prof srvcs 170531 - 170728 UL20190220jgv2 **Amount:** $21,075.01 **Component Description:** Osborn inv #29771 Other Engineering Services UL20181206jgv1 **Amount:** $3,550.00
Pre filing site review	Information not provided.
Other Legal Services	**Component Description:** Covington 60801029 v190712jgv2 **Amount:** $144.71 **Component Description:** Covington 60805585 v190513pmv1 **Amount:** $34.53 **Component Description:** Covington 60801029 v190513pmv1 **Amount:** $164.44 **Component Description:** Covington 60801032 v190508pmv1 **Amount:** $99.68 **Component Description:** Covington 60801029 v190508pmv1 **Amount:** $164.44

	Component Description: Covington 60801032 v190528jgv2 **Amount:** $70.43 **Component Description:** Covington 60805585 v190508pmv1 **Amount:** $34.53 **Component Description:** Covington inv #60796723 Various Legal UL20181024jgv1 **Amount:** $174.42
Additional Field Engineering Service, 20 Days	Information not provided.
RF Exposure Measurements	Information not provided.
Comprehensive coverage verification via field study, if needed	Information not provided.
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.
ASR modification (prepare FCC Form 854)	Information not provided.
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.

Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	Information not provided.
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.
Prepare request for Special Temporary Authorization	Information not provided.
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Information not provided.
Perform engineering study for new channel assignment and antenna development	Information not provided.
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.
Project management of the transition	**Component Description:** AFF inv #20181435 Consulting Services 181101-190131 UL20190402jgv1 **Amount:** $6,000.00

Component Description:	Inv 29213 KING Proj Mgt 180428-180525 UL20180702jg v1
Amount:	$1,575.00
Component Description:	Osborn inv #29771 Form 387 2018 Q2 UL20181206jgv1
Amount:	$337.50
Component Description:	Osborn 32970 v190617pmv1
Amount:	$450.00
Component Description:	Osborn 32831 v190613pmv1
Amount:	$5,982.12
Component Description:	Osborn 33665 v190618pmv1
Amount:	$75.00
Component Description:	Osborn 34593 v190730jgv1
Amount:	$1,950.00
Component Description:	Osborn inv #26012 Prof srvcs 170531 - 170728 UL20181107jg v1
Amount:	$21,075.01
Component Description:	Osborn inv #29771 Prof srvcs 180526 - 180629 UL20181206jgv1
Amount:	$2,400.00

Prepare and or review reimbursement form	**Component Description:**	Osborn 34583 v190730jgv1
	Amount:	$1,688.00
	Component Description:	Osborn 32831 v190613pmv1
	Amount:	$850.00
	Component Description:	Osborn 32970 v190617pmv1
	Amount:	$450.00

Cost Information

Other Expenses

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	**$288,989.36**	**$288,439.36**		**$139,614.19**	
Internal labor	***$23,847.00***	$23,847.00	N/A	N/A	N/A
PR Firm	***$43,000.00***	$43,000.00	See the Quote attached to the uploaded the FEAREY GROUP, INC. invoice 2019-035.	$31,168.44	N/A
MVPD Notification of Channel Change	***$6,000.00***	$6,000.00	Hire services to insure that MVPD's have been notified of upcoming changes and testing windows for new channel operation.	N/A	N/A
Develop and air announcement of upcoming channel change	***$6,000.00***	$6,000.00	Produce informational spot about upcoming changes for consumers.	$3,270.00	N/A

Equipment Storage	***$15,000.00***	$15,000.00	Flatbed storage for 6 months per Dielectric for new antennas and transmission line.	$13,910.00	N/A
Equipment Delivery and Handling Charges	***$33,592.36***	$33,592.36	See invoices attached	$33,592.36	See invoices attached
Disposal Costs (for equipment and other waste, net of any salvage value)	***$25,000.00***	$25,000.00	N/A	N/A	N/A
Local Zoning	***$100,000.00***	$100,000.00	Zoning and Construction permits could require extensive reviews and extensively long permitting process. expediter are commonly used and because of the location of the tower we can expect multiple challenges in the permitting process for structural mods.	$44,322.39	N/A

DTV Medical Facility Notification	$11,550.00	$11,000.00	N/A	$3,750.00	N/A
Non-zoning permits	***$25,000.00***	$25,000.00	N/A	$9,601.00	N/A
Sub-total	$288,989.36	$288,439.36	N/A	$139,614.19	N/A
Total for all systems	$3,605,121.87	$4,482,796.55	N/A	$3,093,097.89	N/A

Components

Actual Information Description	File Name
Internal labor	Information not provided.

PR Firm	**Component Description:**	Fearey 2019-109 v190726jgv1
	Amount:	$2,756.25
	Component Description:	Fearey 2019-110 v190726jgv1
	Amount:	$5,625.00
	Component Description:	Fearey 2019-171 v190927pmv1
	Amount:	$3,262.50
	Component Description:	Fearey inv #2019-035 PR UL20190402jgv1
	Amount:	$8,000.00
	Component Description:	Fearey 2019-220 v190927pmv1
	Amount:	$2,587.50
	Component Description:	US Print 308011 v190927pmv1
	Amount:	$894.63
	Component Description:	Fearey 2019-258 v190927pmv1
	Amount:	$5,043.75
	Component Description:	US Print 307744 v190530pmv1
	Amount:	$580.06
	Component Description:	Fearey 2019-314 v190919jgv1
	Amount:	$2,418.75

MVPD Notification of Channel Change	Information not provided.	
Develop and air announcement of upcoming channel change	**Component Description:** **Amount:**	2C Media inv #203806 Creation of channel change announcement UL20181016jgv1 $3,270.00
Equipment Storage	**Component Description:** **Amount:** **Component Description:** **Amount:**	Die 587035 v190911pmv1 $7,090.00 Die 587008 v190911pmv1 $6,820.00
Equipment Delivery and Handling Charges	**Component Description:** **Amount:** **Component Description:** **Amount:**	Die 587035 v190911pmv1 $18,545.75 Die 587008 v190911pmv1 $15,046.61
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	

Local Zoning	**Component Description:** **Amount:**	TCI 8506 v190729jgv1 $36,212.39
	Component Description: **Amount:**	TCI 8265 v190919jgv1 $8,110.00
DTV Medical Facility Notification	**Component Description:** **Amount:**	RF Notifs 1353 v190925jgv1 $3,750.00
Non-zoning permits	**Component Description:** **Amount:**	City of Seattle inv #943971 Ant struct alter local permit pmt 1 UL20181029jgv1 $7,020.00
	Component Description: **Amount:**	City of Seattle inv #1041343 Ant struct alter local permit pmt 2 UL20181029jgv1 $2,581.00

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$3,605,121.87	$4,482,796.55	$3,093,097.89

Reimbursement Status

Question	Response
The facility has ceased operating on its pre-auction channel.	No
Construction of final facilities or all necessary modifications are complete.	No
All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator.	No

Certification

Section	Question	Response
Submission of Estimated Expenses Statements	WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
	1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
5. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

	8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.	
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**Jeffrey C Gehman** *Engineering Associate* 10/02/2019

Certification

Section	Question	Response
Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
	1. The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct. 3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	

4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
5. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (full power and Class A stations) and/or otherwise modify a television station’s facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD) .
6. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

	8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission. 9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested.	
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**Jeffrey C Gehman** *Engineering Associate* 10/02/2019

Attachments